

REMARKS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS.

Claims 1-15 are pending in this application. Claims 7 and 9-15 have been withdrawn from consideration. Claims 1 and 9 are independent. Claim 1 has been amended in this response. No new matter has been introduced.

It is submitted that the claims are patentably distinct over the prior art cited in the Office Action, and that these claims are in full compliance with the requirements of 35 U.S.C. § 112. The amendment of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. THE 35 U.S.C. §103(a) REJECTION HAS BEEN OVERCOME

Claims 1-6 and 8 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,470,944 to Billings et al. (hereinafter, merely "Billings") in view of U.S. Patent No. 6,428,874 to McGahern et al. (hereinafter, merely "McGahern") and further in view of US 2002/0102894 to Hansen (hereinafter, merely "Hansen").

Amended claim 1 recites, *inter alia*:

“A single facer corrugator belt in combination with a corrugated paper board machine, said belt comprising:
... a polymeric resin layer applied to at least one surface of said base structure; and
a plurality of grooves formed in said polymeric resin layer;
wherein said plurality of grooves aid in improved sheet release and increased rate of board moisture removal.” (emphasis added)

In paragraphs 3 and 5 of the Advisory Action, the Examiner points out that the arguments presented in the previous response were not commensurate with the scope of the claimed invention. Accordingly, independent claim 1 has been amended in this response to include the limitation wherein the plurality of grooves aid in improved sheet release and increased rate of board moisture removal as indicated above.

Applicants submit that Billings clearly does not teach a grooved corrugator belt and that the primary purpose of grooves in McGahern is to for the temporary storage of water pressed from a paper web. On the contrary, grooves are provided on the outer surface of the belt according to the instant invention in order to a) ease sheet release and b) to increase the rate of board moisture removal. The coated sheet contacting surface of the instant invention is vented either with grooves or holes in order to allow moisture laden air to escape to the atmosphere and not to temporarily store water pressed from a web. There is no requirement or need for “temporary storage” in the instant invention.

As to Hansen, one or both of the upper and lower surfaces of the monofilament yarn in Hansen may be provided with grooves for the temporary storage of water. Hansen, ¶ 0021.

Again, the Applicants would like to underscore that Hansen’s yarns are provided with passages for conveying water away from or dewatering a cellulosic fibrous web and not to either a) ease sheet release or b) increase the rate of board moisture removal from a board being formed on a corrugator belt, as in the instant invention.

Applicants respectfully submit that the difference between other industrial processes and a corrugated paper board production machine is that the transfer belt in the former case dewateres a material and has voids in its yarn or fabric structure to temporarily store liquid water, as one skilled in the art would understand. However, in the latter case, the belt allows passage of moisture laden vapor from the laminated sheets of paper. It should be noted that the moisture laden vapor in this case is the moisture drive off from the gluing operation or sprayed liquid starch and not moisture that was in the sheets making up the corrugated board. That is exactly why instant claim 1 has been amended to read “board moisture removal”. The sheets in a corrugated paper board machine are introduced virtually dry and a skilled artisan clearly understands the difference between the removal of water or dewatering from the sheets, and the board moisture laden vapor that comes from these corrugated paper boards. Accordingly, Applicants respectfully submit that the purpose of the invention is not served by any of the cited references considered either alone or in combination. Specifically, none of the cited references provide for the plurality of grooves aiding improved sheet release and increased rate of board moisture removal, as recited in amended claim 1.

Therefore, Applicants submit that independent claim 1 is patentable and respectfully request the withdrawal of the rejection.

III. OBVIOUSNESS-TYPE DOUBLE PATENTING REJECTION

Claims 1-6 and 8 were rejected under the judicially-created doctrine of obviousness-type double patenting as allegedly being unpatentable over claim 1-19 of Billings in view of McGahern and further in view of Hansen.

For at least the reasons discussed above, Applicants submit that the obviousness-type double patenting rejection must fail as a matter of law. Consequently, reconsideration and withdrawal of the provisional obviousness-type double patenting rejection are respectfully requested.

IV. DEPENDENT CLAIMS

The other claims are dependent from one of the independent claims, discussed above, and are therefore believed patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

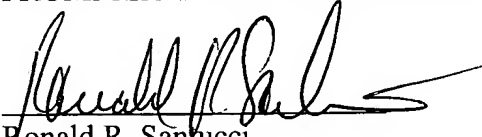
In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference or references, providing the basis for a contrary view.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully requests early passage to issue of the present application.

Please charge any additional fees that may be needed, and credit any
overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,
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